

(19) World Intellectual Property
Organization
International Bureau



03 MAY 2005



(43) International Publication Date
21 May 2004 (21.05.2004)

PCT

(10) International Publication Number
WO 2004/042775 A2

(51) International Patent Classification⁷: **H01J 49/00**

(21) International Application Number:
PCT/GB2003/004750

(22) International Filing Date:
4 November 2003 (04.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0225791.3 5 November 2002 (05.11.2002) GB

(71) Applicant (for all designated States except US): **KRATOS ANALYTICAL LIMITED** [GB/GB]; Wharfside, Trafford Wharf Road, Manchester, Greater Manchester M17 1GP (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PAGE, Simon, Charles** [GB/GB]; 15 Warhurst Fold, Hadfield, Derbyshire

SK13 1AX (GB). **PARK, Colin, Duncan** [GB/GB]; 92 Boothway, Tottington, Bury, Greater Manchester BL8 3JT (GB). **HOPPER, Christopher, Michael** [GB/GB]; 15 Whitehaven Road, Bramhall, Stockport, Greater Manchester SK7 1EL (GB).

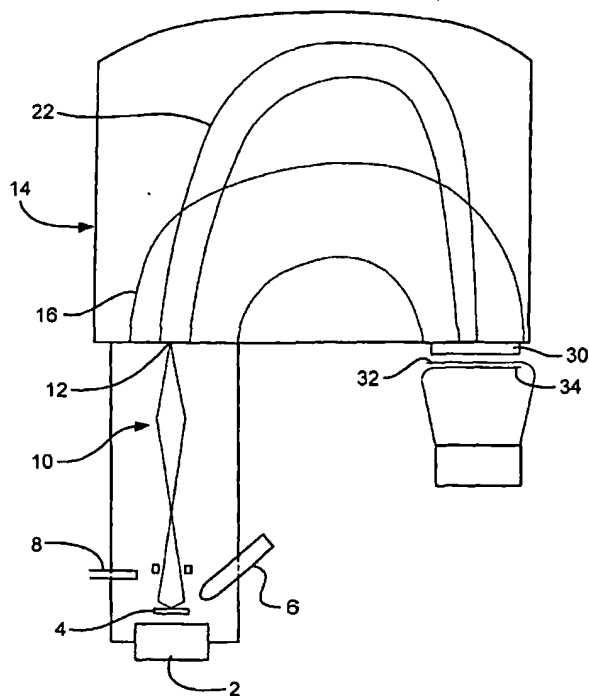
(74) Agents: **HACKNEY, Nigel, J. et al.**; Mewburn Ellis, York House, 23 Kingsway, London, Greater London WC2B 6HP (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: CHARGED PARTICLE SPECTROMETER AND DETECTOR THEREFOR



(57) Abstract: A charged particle (e.g. photoelectron) spectrometer is operable in a first mode to produce an energy spectrum relating to the composition of a sample being analysed, and in a second mode to produce a charged particle image of the surface of the sample being analysed. A detector is used to detect charged particles produced in both modes of operation. A method of operation of the spectrometer includes the step of selecting which of said first and second modes to use and the detector being operated accordingly.

WO 2004/042775 A2



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *without international search report and to be republished upon receipt of that report*